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# TWO WATERSHED PROJECTS OF THE SOIL CONSERVATION SERVICE

## HEARING

BEFORE THE

## SUBCOMMITTEE ON WATER RESOURCES

OF THE

## COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

SECOND SESSION

ON

TURKEY CREEK WATERSHED, OKLAHOMA AND INDIAN CREEK-VAN BUREN WATERSHED, IOWA

SEPTEMBER 25, 1984

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# TWO WATERSHED PROJECTS OF THE SOIL CONSERVATION SERVICE

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**TUESDAY, SEPTEMBER 25, 1984**

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON WATER RESOURCES,
*Washington, DC.*

The subcommittee met at 2:38 p.m., in room SD–406, Dirksen Senate Office Building, Hon. James Abdnor (chairman of the subcommittee) presiding.

Present: Senator Abdnor.

## OPENING STATEMENT OF HON. JAMES ABDNOR, U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Senator ABDNOR. The meeting will come to order.

It is a pleasure to be here today to conduct this hearing on the Turkey Creek Watershed in Oklahoma and the Indian Creek-Van Buren Watershed in Iowa. The subcommittee is always pleased to have the opportunity to review small watershed projects.

The small watershed program is often an excellent example of how areawide water resources problems can be addressed by strong cooperation between the Federal Government and local interests.

For example, on both of the projects before us today, local sponsors will contribute substantial sums toward its implementation. The philosophy of local costsharing cooperation on water projects has received strong support by this subcommittee.

I would like to welcome our two witnesses from the Soil Conservation Service, Harris Judy and John Frost. Before they speak on the details of these projects, however, I would now like to extend a warm welcome to Senator Jepsen who is here to speak on behalf of the Indian Creek-Van Buren project.

We are happy to welcome you. I understand you have a fine project here.

## STATEMENT OF HON. ROGER W. JEPSEN, U.S. SENATOR FROM THE STATE OF IOWA

Senator JEPSEN. Thank you, Mr. Chairman.

I am pleased to appear before you today in support of the Indian Creek-Van Buren Watershed Project. I bring with me a statement by Mr. Jay Goldstein of the Van Buren County Development Association. I ask it be included in the record.

Senator ABDNOR. Without objection. (See p. 6.)

Senator JEPSEN. I thank you, Mr. Chairman, for holding this hearing so late in the session. In the interest of time, I shall be brief.

The Indian Creek-Van Buren Watershed project enjoys widespread support from local and State organizations and governmental bodies. All of us who have been involved in the project are appreciative of the assistance given by the Soil Conservation Service, the Fish and Wildlife Service, and the U.S. Forest Service.

It has been 20 years since the watershed was first conceived to the point where we are today, asking that this committee give the necessary approval to make the Indian Creek-Van Buren Watershed a reality.

A major hurdle was cleared on April 23, 1983, when David Stockman, Director of the Office of Management and Budget, sent this project to the Congress for consideration. The House of Representatives has finished its part and has approved the watershed. It is now up to the Senate to do the same.

The six floodwater-retarding structures and the one multipurpose structure for flood protection in this bill and municipal and industrial water supply and other agricultural water will protect some 2,000 acres of land. As the members of the committee might know, the southeast part of Iowa has experienced the extremes of flood and drought in disastrous proportions over the last several years. While not a cure-all, without question, these structures would go a long way toward alleviating both problems.

Mr. Goldstein explains many of the details of the project in his statement. I am sure the committee will find them in order and relevant to any discussion about the project.

So, Mr. Chairman, I strongly urge that the committee approve the Indian Creek-Van Buren Watershed project. It is time to end the 20 years of waiting and to begin this project today.

I again thank the distinguished chairman for his cooperation and his courtesy.

Senator ABDNOR. Thank you, Senator Jepsen. I know you have had a longtime interest in this. I am well aware of what you went through this spring and early summer with those floods. Similar situations like this are in South Dakota. I just wish our people would get together on them so we could proceed, too.

I congratulate you for having the solid support of the people back there. We appreciate your being here. I am sorry if I rushed you, but we are moving fast on this today.

Senator JEPSEN. Thank you.

Senator ABDNOR. With that, we will ask Mr. Harris Judy, Assistant Director of the Project Development and Maintenance Division, Soil Conservation Service, to come forward. I think we can bring both gentlemen forward at the same time. So we would ask Mr. John Frost, the legislative coordinator, to come forward also. I understand you work as a team.

Gentlemen, you may go right ahead.

**STATEMENT OF HARRIS W. JUDY, ASSISTANT DIRECTOR, PROJECT DEVELOPMENT AND MAINTENANCE DIVISION, SOIL CONSERVATION SERVICE; ACCOMPANIED BY JOHN E. FROST, JR., BUDGET AND LEGISLATIVE COORDINATOR, BASIN AND AREA PLANNING DIVISION, SOIL CONSERVATION SERVICE**

Mr. JUDY. We will speed this up just as much as you please.

Mr. Chairman, I am pleased to appear before your committee today to provide support for the two watershed projects your are considering: the Indian Creek-Van Buren Watershed in Iowa and Missouri, and Turkey Creek Watershed in Oklahoma. With me today is Mr. John Frost, our budget and legislative coordinator for our Basin and Area Planning Division. He will provide a brief technical explanation of these projects. Then we will both be available to answer any questions you may have.

Watershed projeects are no direct Federal undertakings. Rather, they are initiated by local units of government and other sponsoring organizations. They are developed by teams that cooperate with local conservation districts, county governments, and other local entities. Local steering committees are generally formed to give guidance to the planners, help establish planning objectives and priorities, and help select the final plan. The Governors of each State review the project applications to assure their consistency with State plans and programs.

Administration policies for water development emphasize local participation and costsharing and Federal participation based on national economic development. The Soil Conservation Service watershed program is compatible with these policies, and these two projects are in full compliance with them.

The two projects under consideration today have been prepared in accordance with the Watershed Protection and Flood Prevention Act of 1954, Public Law 83–566. Under this act, we are giving the highest priority to planning and approving projects that emphasize erosion control, flood prevention, and water conservation. Both of these projects today are for the purpose of flood prevention. The Indian Creek-Van Buren project also includes storage for the additional purposes of municipal and industrial water supply, other agricultural water supply, and fish and wildlife.

The amount of financial assistance by beneficiaries varies by the project's purpose. For flood prevention, the Federal Government pays 100 percent of the construction costs with Federal funds appropriated under Public Law 83–566. For drainage and irrigation, sponsors must provide at least 50 percent of the construction cost. In both cases, the local sponsors provide all land rights and operate and maintain the completed facilities.

The watershed program is based on a local-State-Federal partnership where the direct beneficiaries of the projects agree to bear a substantial share of the burden of the costs of services they will receive.

For a description of the two projects being considered today, I now turn to Mr. Frost.

Mr. FROST. Mr. Chairman, if you prefer, I could submit this material. It is two pages. Or I could read it.

Senator ABDNOR. Why don't you just summarize it.

Mr. FROST. OK.

The Indian Creek-Van Buren Watershed is 47,000 acres, approximately, in Van Buren County, IA, and a portion in Clark County, MO. There are seven county sponsors, including the Van Buren County Soil Conservation District and the Van Buren Board of Supervisors.

The purposes include flood prevention, municipal and industrial water supply, other agricultural water supply, and fish and wildlife.

The principal measures for this watershed project are structural measures consisting of four single-purpose structures for flood prevention, two cooperative road structures to reduce road problems and provide flood protection, and one multipurpose structure for flood prevention and water supply and fish and wildlife development.

The annual benefits and capital costs are listed in the material I will submit. The total annual benefits and cost—on an average annual basis, the benefits are $468,650 and the costs are $411,110.

Turkey Creek Watershed, OK, is 244,000 acres in Alfalfa, Garfield, Major, and Kingfisher Counties in Oklahoma.

There are five sponsors, including the Alfalfa County Conservation District and the Garfield County Conservation District.

The purpose is flood prevention.

Principal measures for this project are the structural measures consisting of 11 floodwater retarding structures.

The annual benefits and costs are flood prevention and total $576,000, approximately, for benefits, and $464,000, approximately, for costs.

Again, I will submit this detailed information. (See pp. 8–11.)

Senator ABDNOR. Turkey Creek is quite a bit bigger than the Indian Creek-Van Buren Watershed.

Mr. FROST. Yes.

Senator ABDNOR. How much does the Oklahoma project cost?

Mr. FROST. The total cost for Oklahoma is $464,000 annually, and the total cost, including SES and other funds, is $4,586,000. The SES portion for 566 funds is $3,477,900.

Senator ABDNOR. How about Iowa? Doesn't that have a lot of local participation?

Mr. FROST. Yes, sir. That is 41 percent. The Oklahoma share was 24 percent local funded, and for Iowa and Missouri, it is 41 percent.

The total dollars are $4,609,510, and the 566 share of that will be $2,700,890.

Senator ABDNOR. Fine. Do both of the projects have strong local support?

Mr. FROST. Yes, indeed. As far as I know, it is very strong.

Senator ABDNOR. We will find out how they do it. Maybe I can do the same up in South Dakota.

How long have these been in the planning stage?

Mr. FROST. I think both approximately 20 years.

Senator ABDNOR. Are they ready to go?

Mr. FROST. Yes. They are both ready.

Mr. JUDY. Champing at the bit.

Senator ABDNOR. What did they do, tax themselves to pay for this 41 percent?

Mr. FROST. In the case of Oklahoma, they have a capability for acquisition of lands. They have a State revolving fund which the watershed districts are able to obtain a loan from and then repay. Of course, besides that, there would be some donations on the local part of the landowners.

Senator ABDNOR. What about the beneficiaries? Do they pay a mill levy or some kind of a tax?

Mr. FROST. In Iowa they do, yes. But in Oklahoma, as far as I know——

Senator ABDNOR. They go to the revolving?

Mr. FROST. Yes; because of the availability of revolving funds.

Mr. JUDY. Historically, in Oklahoma, their cost for flood water retarding structures has been very minimal. Generally they are donated by the landowner, or the easement is donated.

Senator ABDNOR. Was there a lot of flooding this year in those areas?

Mr. FROST. Yes, definitely. Annually in some areas and more than twice annually in some parts of the watershed.

Senator ABDNOR. Gentlemen, it sounds fine to me. We appreciate your being here and testifying and having all of the information for us. Thank you very much.

Mr. JUDY. Thank you very much.

Senator ABDNOR. This will be up in front of the full committee tomorrow. We hope we have some quick results. Thank you very much.

With that, I thank everyone for attending. The meeting is adjourned.

[Whereupon, at 2:53 p.m., the subcommittee was recessed, to reconvene subject to the call of the chair.]

[The statement from the Van Buren County Development Association and detailed descriptions of the projects follow:]

Van Buren County Development Association, Inc.
P. O. Box 9 - Keosauqua, Iowa 52565

Statement By
Mr. Jay Goldstein
before the Subcommittee on Water Resources
of the Senate Committee on Environment and Public Works
September 25, 1984
The Indian Creek-Van Buren Watershed Project

Mr. Chairman: We would like to thank the Subcommittee on Water Resources for considering the several P.L. 566 watershed projects pending before it. As you know, the Indian Creek-Van Buren Watershed Project is one of these, and we appreciate being given the opportunity to urge your Committee to include the project in the requisite Committee resolution.

As representatives of the local jurisdictions most imtimately involved in the project, we would like to briefly summarize its nature and impact as well as stress the wholehearted support it enjoys in our communities.

Efforts to create the Indian Creek-Van Buren Watershed have been underway for 20 years, with the first meeting held in 1964. The plan for the project was prepared by the Van Buren Couty Soil Conservation District, Van Buren County Board of Supervisors, Van Buren Couty Conservation Board, Van Buren County Rural Water Association, City of Keosauqua, City of Cantril, and Iowa Conservation Commission, as Sponsoring Local Organizations (hereinafter referred to as Sponsors). Technical assistance was provided by the United States Department of Agriculture, Soil Conservation Service (hereinafter referred to as the SCS). The United States Department of the Interior, Fish and Wildlife Service, assisted with fish and wildlife aspects and the Department of Agriculture, U.S. Forest Service assisted with forestry aspects of the plan.

The watershed is located in southeast Iowa and northeast Missouri. Indian Creek flows southeasterly into the Des Moines River near Farmington, Iowa. The project area is 47,200 acres or 73.75 square miles. It is approximately 27 miles long and 6.2 miles wide at its widest point. No cities are located in the watershed; however, Keosauqua, the county seat of Van Buren County, is located three miles north.

Excess runoff causes frequent flooding of crops and pasture on bottomlands. The 100-year frequency flood inundates 1,565 acres of flood hazard area land. Average annual flood hazard area is 2,026 acres. Estimated average annual floodwater damages are $161,070.

The cities of Keosauqua and Cantril have inadequate water supplies and have requested inclusion of municipal and industrial water supply storage as part of the project. Van Buren Couty Rural Water Association requested storage of other agricultural water and municipal and industrial water. Van Buren Couty Conservation Board requested additional water and land for fish and wildlife development.

The projects includes six floodwater retarding structures for flood prevention and one multiple-purpose structure for flood prevention, municipal and industrial water supply, other agricultural water, and fish and wildlife development. Installation costs of structural measures, including mitigation measures, are estimated to be $4,609,510 for a six year installation period. Of this amount $2,700,890 will be paid from PL-566 funds and local funds will provide $1,908,620.

All structures except the impoundment designated H-4 and the fish and wildlife facilities will be operated and maintained by the Van Buren County Soil Conservation District or the Van Buen County Board of Supervisors. Structure H-4 will be operated and maintained by the cities of Keosaqua and Cantril, Van Buren County Conservation Board, Van Buren County Soil Conservation District, and the Van Buren County Rural Water Association. The Iowa Conservation Commission and the County Conservation Board will operate, maintain, and manage the fish and wildlife facilities.

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The estimated average annual operation, maintenance, and replacement costs of the structural measures are $46,730.

The project will have important effects on the inhabitants and agricultural land in the watershed. Of 273 farms in the watershed, 35 will receive benefits from reduction of floodwater damages and enhancement of land. Additional benefits will accrue to roads, bridges, fences, and farm crossings.

Multiple-purpose strucutre M-4 will provide present and future residents of Van Buren County with an adequate and better quality water supply. It will also impound additional water for fish and wildlife habitat. The water surface area will usually be 564 acres.

The Van Buren County Conservation Board will develop the reservoir and adjacent area for fishing and hunting. They will provide access roads, parking areas, sanitary facilities, fishing jetties, and facilities for picnicking.

Estimated total average annual project benefits are $468,650 and estimated average annual project costs are $411,110 for a benefit-cost ratio of 1.1 to 1.0

As you know, Mr. Chairman, the area in Southeastern Iowa in which this project is located has been particularly hard hit by both droughts and floods in recent years. If approved, this project will do much to alleviate the problems caused by these natural disasters. In addition, the project will supply water for a local rural water system. As you may also know, much of Iowa suffers from severe ground water problems. In this area, many of the shallow wells are undependable and the deep wells are highly mineralized. Thus the rural water project will be a significant contribution for the rural residents and farmers in the area. However, we would emphasize that none of the water provided by the project will be used for irrigation, but will be for home and farm use, principally livestock production.

The project is badly needed. It has the complete and enthusiastic support of the entire community and has been given the highest priority by Iowa's Soil Conservation Service Office.

Again, we thank you for the opportunity to make our case before you and urge the inclusion of the Indian Creek-Van Buren Watershed in the Committee resolution.

* * * *

INDIAN CREEK-VAN BUREN WATERSHED, IOWA AND MISSOURI

The Indian Creek-Van Buren Watershed covers 47,200 acres. Indian Creek flows into the Des Moines River above the Missouri state line in southeast Iowa. Most of the watershed is in Van Buren County, Iowa, and a small portion is in Clark County, Missouri.

There are no cities or towns located in the watershed. The population of Van Buren County is 8,600, of which 3,300 are in rural areas and 5,300 are in urban areas. Keosauqua, the Van Buren County seat, has a population of 1,018 and is located about 4 miles north of the junction of Iowa Highways 1 and 2. Cantril, which has a population of 258, is seven miles south of this junction.

There are 273 farms located entirely or partially within the project area. About 92 percent are owner operated. The principle crops are corn and soybeans. The average-sized farm is 289 acres. The average land value is about $1,300 per acre.

The principle resource problem is frequent flooding of agricultural land. There are 1,565 acres in the flood plain of which two-thirds are flooded nearly every year and one-third are flooded more than once each year. The floods damage the crops as well as roads, bridges, fences, and other rural properties. The average annual damages are estimated to be $161,070.

The towns of Keosauqua and Cantril and other rural residents depend on wells for their water supply. The groundwater in the area has undesirable odor and taste and unhealthful effects from mineralization. Shallow wells have low yields and are subject to surface pollutants.

The project has been planned for watershed protection, flood prevention, water supply to city and rural residents in Van Buren County, and fish and wildlife development. Six years will be required for project installation.

The planned project measures include one multiple-purpose structure for flood prevention, municipal and industrial water supply, other agricultural water supply, and fish and wildlife; four single-purpose floodwater retarding structures for flood prevention; and two cooperative road structures for flood prevention and road purposes. The multiple-purpose structure will provide about 5,500 acre-feet of floodwater retarding capacity, 3,900 acre-feet for water supply, 1,700 acre-feet for fish and wildlife, and 1,700 acre-feet for sediment storage.

The project will reduce average annual flood damages by 42 percent. The average area flooded annually will be reduced from about 2,000 acres to 850 acres. The 8,600 residents of the county will be provided a raw water supply for municipal, industrial, or other agricultural uses. Fish and wildlife habitat will be improved. The multiple-purpose structure will provide about 61,000 fisherman visits, 5,200 hunter visits, and 12,000 other recreation visits annually. The lake will provide a typical warm-water fishery of crappie, bluegill, channel catfish, largemouth bass, and northern pike.

Total annual benefits of the project are estimated to be $469,000, of which $129,000 are from flood prevention, $211,000 are from fish and wildlife, and $129,000 are from water supply. The estimated average annual cost is $411,000.

## INDIAN CREEK-VAN BUREN WATERSHED, IOWA AND MISSOURI

**SIZE:**

47,200 acres

**LOCATION:**

Van Buren County, Iowa
Clark County, Missouri

**SPONSORS**

Van Buren County Soil Conservation District
Van Buren County Board of Supervisors
Van Buren County Conservation Board
City of Keosaaqua, Iowa
City of Cantril, Iowa
Van Buren County Rural Water Association
Iowa Conservation Commission

**PURPOSES:**

Flood prevention, municipal and industrial water supply, other agricultural water supply, and fish and wildlife.

**PRINCIPAL MEASURES:**

Structural measures consisting of four single-purpose structures for flood prevention, two cooperative road structures to reduce road problems and provide flood prevention, and one multiple-purpose structure for flood prevention, water supply, and fish and wildlife development.

**ANNUAL BENEFITS AND COSTS:**

| | Average Annual Dollars | |
|---|---|---|
| | Benefits | Costs |
| Flood prevention | 128,800 | 102,540 |
| Municipal and industrial water supply | 60,620 | 36,090 |
| Other agricultural water supply | 68,090 | 42,590 |
| Fish and wildlife development | 211,140 | 202,410 |
| Project administration | -- | 27,480 |
| Total annual benefits and costs | $468,650 | $411,110 |

**CAPITAL COSTS:**

| | P.L.-566 Funds | | Other Funds | | Total |
|---|---|---|---|---|---|
| | Dollars | Pct. | Dollars | Pct. | Dollars |
| Structural measures | | | | | |
| Flood prevention | 1,122,560 | 88.7 | 143,490 | 11.3 | 1,266,050 |
| M&I water supply | -- | 0.0 | 440,210 | 100.0 | 440,210 |
| Other Ag water | 228,230 | 44.0 | 290,470 | 56.0 | 518,700 |
| Fish & Wildlife | 1,023,140 | 50.3 | 1,012,630 | 49.7 | 2,035,770 |
| Project Administration | 326,960 | 93.7 | 21,820 | 6.3 | 348,780 |
| TOTAL | $2,700,890 | 58.6 | $1,908,620 | 41.4 | $4,609,510 |

## TURKEY CREEK WATERSHED, OKLAHOMA

Turkey Creek Watershed is located in north central Oklahoma and is made up of portions of Alfalfa, Garfield, Kingfisher, and Major Counties. A total of 244,000 acres is contained within the watershed. Turkey Creek rises just northeast of Helena and drains in a southeastern direction until it enters Cimarron River about 1.5 miles southwest of Dover.

Turkey Creek Watershed is an agricultural area. There are 440 farms with an average size of 550 acres. Dryland wheat farming and stocker cattle operations are the key agricultural enterprises. Some dryland alfalfa and sorgum are grown along with a few irrigated alfalfa fields.

All of Turkey Creek Watershed is in private land except for roads, schools, and other similar local government property. Over 55 percent of the land is considered to be prime farmland. Currently, 72 percent of the land is in cropland, 20 percent in rangeland, 2 percent in pasture, 2 percent in forest land, and 4 percent in other land uses.

Severe flooding is the major resource problem in the watershed. It occurs on 17,600 acres of agricultural flood plain. Average annual damage to crop and pasture is $521,000. In addition, overbank deposition and flood plain scour has caused about $147,000 in damages. Flood damages to other agricultural items, such as fences and equipment, amount to $249,000. Flood damages of $287,000 occur to 87 properties in the town of Dover and to roads, bridges, and oil wells. Total flood damages are estimated to be approximately $1,200,000 annually.

The proposed flood prevention plan for Turkey Creek Watershed will be installed in a 6-year period. Eleven floodwater retarding structures (dams) and 43.5 acres of wildlife mitigation measures will be built at a total cost of $4,586,200.

Landrights will be acquired on 43.5 acres for mitigation of wildlife habitat losses associated with the wet permanent pools in the dams. Mitigation features are planned to replace habitat units lost at structures containing good quality rangeland and riparian timber habitats. Mitigation land will be managed specifically for wildlife utilization. Flooding will be reduced annually from 13,700 acres to 9,600 acres, a 30 percent reduction. Total annual benefits are estimated to be approximately $580,000 and the estimated average annual cost is $482,000.

## TURKEY CREEK WATERSHED, OKLAHOMA

Size and Location - 244,006 acres in Alfalfa, Garfield, Major and Kingfisher Counties, Oklahoma

Sponsors - Alfalfa County Conservation District
Garfield County Conservation District
Kingfisher County Conservation District
Major County Conservation District
Turkey Creek Conservation District No. 28

Purpose - Flood Prevention.

Principal Measures - Structural measures consisting of 11 floodwater retarding structures.

| Annual Benefits and Costs | Average Annual Dollars | |
|---|---|---|
| | Benefits | Costs |
| Flood Prevention | $576,530 | $464,130 |

| Capital Costs - | P.L. 566 Funds | | Other Funds | | Total |
|---|---|---|---|---|---|
| | Dollars | Pct. | Dollars | Pct. | Dollars |
| Structural Measures Flood Prevention | $2,937,600 | 72.7 | 1,102,800 | 27.3 | $4,040,400 |
| Project Administration | 540,300 | 99.0 | 5,500 | 1.0 | 545,800 |
| TOTAL | $3,477,900 | 75.8 | $1,108,300 | 24.2 | $4,586,200 |